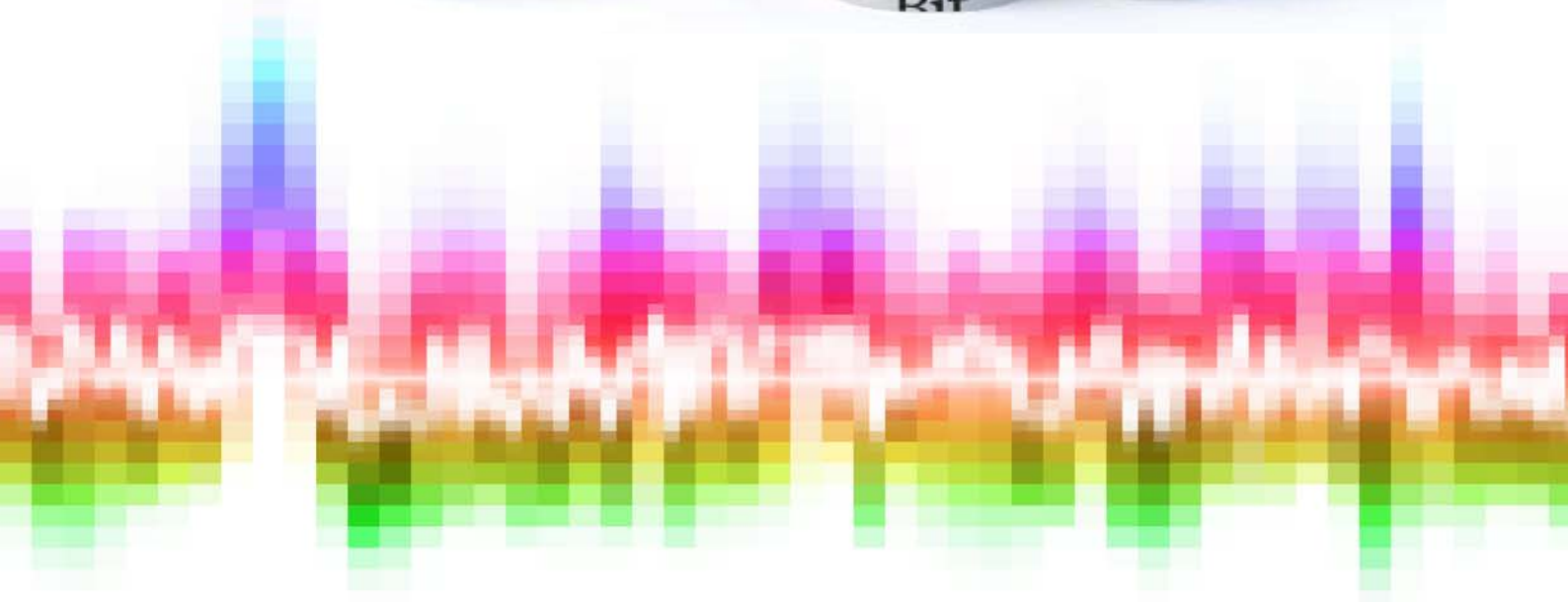


# NuMedia DP100

## Dirac-Pro



# DP100 Full-HD 3G-SDI to HDSDI encoder/decoder using DIRAC PRO by NuMedia

The DP100 is a unique product that allows the transport of Full-HD 3G-SDI images using the existing HD-SDI infrastructure. The DP100 substantially reduces the cost of migration to Full-HD 3G-SDI by allowing the reuse of existing HD-SDI plant and infrastructure. The encoded output is fully compliant with SMPTE 292M (the standard for HD-SDI contribution) and is viewable using a DAC or waveform monitor for confidence monitoring. In the case of the DP100, there is a version which has audio and video monitoring built in. As the encoded output runs at HD-SDI rates, the DP100 output will operate over much longer cable runs than 3G-SDI and is more tolerant of jitter build-up. The DP is designed to offer a wide range of options including a single channel optical transmitter and receiver.

The DP100 incorporates true multi-standard interfacing and the decoder will automatically bypass uncompressed HD-SDI (1.5 Gbps) and SDI (270Mbps).

DIRAC Pro DP100 can be either stand alone units, which can use an external mains power supply (supplied). They can also be powered

by external DC, such as batteries. Or by using the Chameleon frame which can house up to 4 DP100 cards. There is also a version of the DP100 which is ideal for use in the field since it is shower proof. These features allows system designers to introduce 3G-SDI capability into existing HD-SDI equipment as demand develops and provides for fully integrated solutions for the transmission of video and audio signals over distances that cannot be accomplished using conventional copper co-axial cable. Up to 40 km of fibre can be driven when HD-SDI signals are applied. The bricks can be supplied in either 1310nm or 1550 nm versions. Other frequencies between 1470nm and 1610nm can be supplied for CWDM applications.

There are feature differences between the stand alone and Chameleon rack versions. Please see the 'Ordering Information' at the end of this brochure for which signal formats are support by each version. Also the stand alone brick versions also have a DVI-I monitoring and TOSLINK SPIF audio monitoring outputs which the Chameleon rack versions do not.

## Applications

- Professional Contribution
- Live Events
- Studio to Studio transport



## Features

### DP100

- Dual multi-standard inputs & outputs
- 1080i & 720P capability
- Low latency multi-wavelet encoder using DIRAC PRO (VC-2)
- Automatic standard detection
- Automatic bypass SDSDI, HDSDI & 3GSDI
- Input CRC checking
- Monitoring digital RGB DVI-D output (1080i, 720P)
- Monitoring audio de-embedder with audio pair selection
- Optical SPDIF monitoring audio output
- Optional single-mode SFP fiber output
- Retains configuration settings when powered down
- Ethernet Browser Control

# Specifications

## SDI Video Standards

(Note 1): SMPTE 259M/292M/424M

VIDEO FORMAT TO:-

VC-2 Encoder: 292M (1080i/720P)

VC-2 Decoder (Note 2): 259M (VC-2 CODED)

Return Loss/Jitter: as per SMPTE 292M/424M

Cable Length: Belden 1694A 150m (292M),  
100m (424M)

DVI Output DVI-D Digital GBR 8-bit

Format 1920x1080i/1280x720P

Connector DVI-D. Female

Audio Digital: AES-3 SPDIF

Audio Connector: Optical TOSLINK

Fibre (Optional): Dual-Transmitter Single-Mode

Fibre Connector: SFP

Control IP: Resident Web Page in unit (RJ45)

Address: DHCP Assigned (default) with static assignment of IP Address if required.

## Indicators:

Power: OK (Green)

Input A CRC Error (Red)

Input B CRC Error (Red)

1080i Detected (Green)

EPROM Save (shared with 720P Detected) (Green)

Power Supply: 12V DC at 1.25A (PSU supplied)

Power Consumption: 10 watts (max)

Power Connector: locking 2.1mm jack

Dimensions: 144mm W x 130mm D x 37mm H

Weight: 425 grams

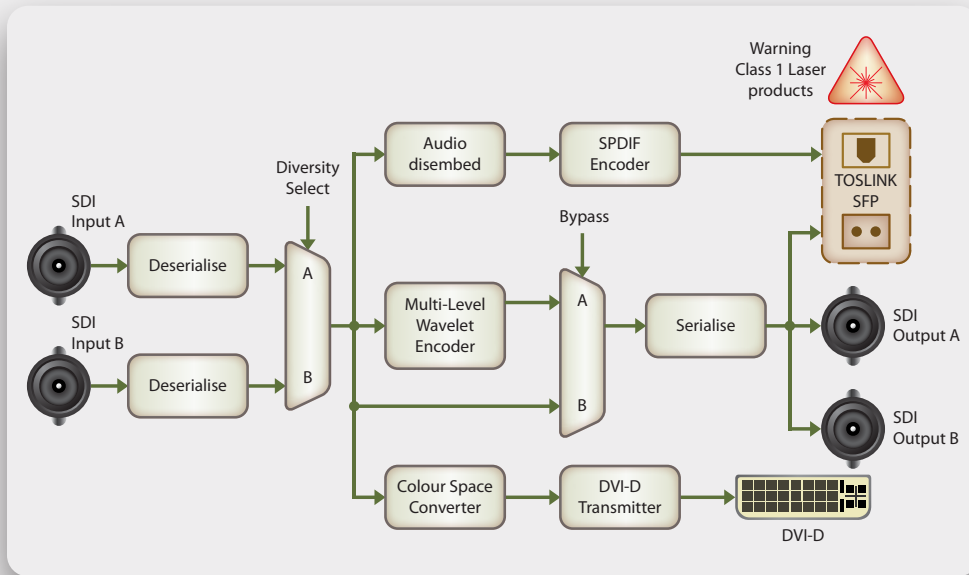
Operating Temperature: 0 TO 35 deg C

Note 1: Video formats other than 1080i & 720P be bypassed automatically.

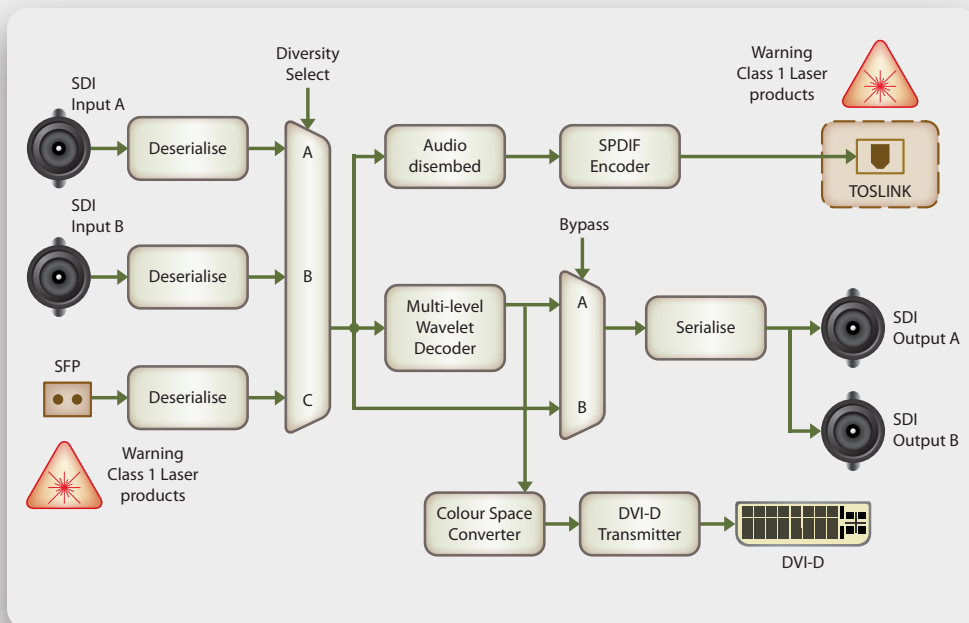
Note 2: Non-VC-2 coded SD-SDI be bypassed automatically.

Transmitter	Receiver	Data Rate	Link Distance (Min)
1310um	PIN	2.97Gbps	5km
		1485Mbps	10km
		270Mbps	15km
1550um	PIN	2.97Gbps	33km
		1485Mbps	55km
		270Mbps	65km
	APD	2.97Gbps	33km
		1485Mbps	75km
		270Mbps	100km

# Specifications



*ENCODER*



*DECODER*

# Ordering Information

## Modular solution:-

CH100-P Chameleon 1RU Chassis with 4 card slots plus dual PSU  
DP 100DR Dirac-Pro HD-SDI to Dual-link/3Gbit/s SDI Decoder 1RU Chameleon module  
DP 100ER Dual-Link/3Gbit/s SDI to Dirac-Pro HD-SDI Encoder 1RU Chameleon module

## Stand alone brick solution:-

DP 100E Dual-Link/3Gbit/s SDI to Dirac-Pro HD-SDI Encoder, PSU Included  
DP 100D Dirac-Pro HD-SDI to Dual-Link/3Gbit/s SDI Decoder, PSU Included  
DP 100DM Dirac-Pro HD-SDI to Dual-Link/3Gbit/s SDI Decoder with Audio & DVI Monitoring, PSU Included

TX SFP 1310nm, Optional Fibre transmitter module, 1310 nm for Dirac Pro bricks and modules

TX SFP 1550nm, Optional Fibre transmitter module, 1550 nm for Dirac Pro bricks and modules

RX SFP, Optional Fibre receiver module for Dirac Pro bricks and modules

Please note, the SFP lasers and receivers are not included in any of the above products, please discuss fibre requirements with NuMedia



*Features and specifications subject to change without notice. All photographs are generic examples only and may not fully represent the product delivered.*

**NuMedia** 

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